

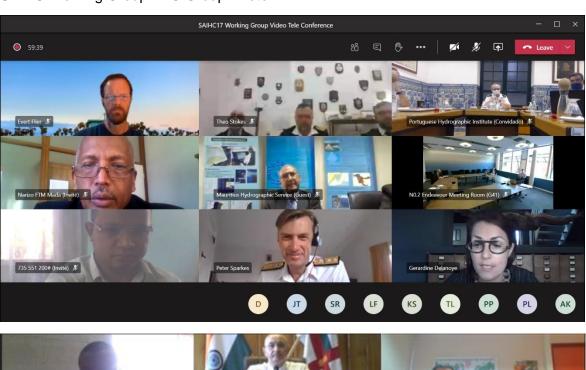


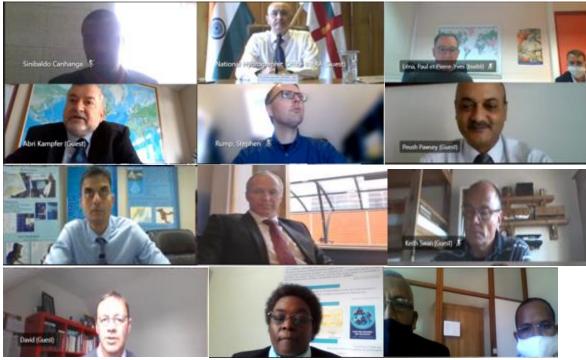
SAIHC17 Working Group Video Tele Conference 7 September 2020 Report

Note - this document does not act as full meeting minutes, however, it provides an overview of Records of Decisions (ROD), summary of action items, outlining the key aims and outcomes of the Int Chart Coordination (ICC) and Marine Spatial Data Infrastructure (MSDI) working groups. A summary of actions can be found at Annex A.

The numbering in the report coincides with the agenda items of the working group.

SAIHC Working Group VTC Group Photo





Attendance list is at Annex B





Login and administrative update

The SAIHC Secretary introduced the participants to Microsoft Teams software and VTC etiquette.

Decisions - None

Action - None

Chair Intro Opening remarks and welcome from the Chair

RAdm Peter Sparkes introduced himself and is delighted and honoured to have taken over the role as Southern African and Islands Chair for this Commission. The Chair noted that we all recognise that these are challenging, and difficult times and sent his and UKHO's best wishes to delegates and their respective families at this most challenging time.

The Chair commented on the region's commitment to Hydrography and the support of partner HO's that have been fundamental in recent months to our continued support to mariners in the region; also noting that we will undoubtedly be stronger following this COVID-19 crisis. He hoped it would not be too long before we can meet in person and very much looks forward to this.

The Chair reflected on the importance of sharing collective experience during these challenging times to maximise opportunities and benefits and minimise duplicate efforts.

Referring to the dreadful events in Beirut, Lebanon and noted the collective IHO, HO's support for a common purpose to ensure the port of Beirut could open safely and as quickly as possible. This was noted as a fine example of collaboration.

The Chair expressed regret regarding the environmental impact of Japanese Vessel MV Wakashio grounding in Mauritius.

The Chair remarked on the relatively high level of attendance under the circumstances. He stressed the importance of maintaining communications beyond the formal sessions and to keep connections and collaboration advancing. Finally, he looked forward to active participation for the meeting.

Decisions - None Action - None

Vice-Chair update

Mr Joomun thanked the Chair for the opportunity to introduce himself and provide an update on Plenary. Recently taken over position as Permanent Secretary of the Ministry of Housing and Land Use Planning from Ministry of tourism. He noted what an honour it is to be part of this commission and provided assurance to give his best attention in the role of Vice Chair.

Current update, Mauritius has not registered a local case of COVID-19 in 110 days. This has been made possible by relentless efforts of government, healthcare professionals and the discipline of the population. Vice Chair highlighted the resolve to overcome recent calamities and thanked the chair for his support.





Originally Mauritius was looking forward to hosting SAIHC17 in September. At our last VTC meeting in June we agreed to postpone until January 2021. Due to the unprecedented situation caused by COVID 19 there are numerous uncertainties around travel and when borders will be reopening and free movement for commercial flights. Therefore, Mauritius proposes the option to host SAIHC 17 virtually on mutually convenient dates. Vice Chair thanked the Chair and looked forward to fruitful discussions on matters related to international charts coordination and Marine Spatial Data Infrastructure.

Chair thanked the Vice Chair and acknowledged the update and the success Mauritius have had in managing the COVID crisis so well. He proposed that the 17th SAIHC commission should be held virtually following your recommendation and I will speak with Director Kampfer on completion.

Decision - None

Action 1: SAIHC Chair to consult with Vice Chair to arrange details for Plenary of SAIHC 17 in January 21.

IHO Update

Director Abri Kampfer introduced himself to the group. He noted this is the first time in history the IHO Secretariat has selected a new director by remote methods with the blessing of the HO community. The IHO note the limitations of VTC's and how difficult it is to conduct discussions, but we have learnt how to adapt and make decisions by remote and small working groups to achieve more. On the status of the membership of the IHO, 2 new countries have joined, Republic of Ghana and Samoa. It currently stands at 93 members and as the IHO approaches the 100-year celebration it looks forward to gaining 7 new members to reach the 100 mark. In the SAIHC region there is potential to meet this objective as Angola, Comoros, Kenya, Madagascar, Malawi, Namibia, Tanzania are all potential members. With regard, to IHO Assembly postponed due to COVID-19 ACL29 has been issued proposing A-2 to be held by VTC. Approval by member states is required by 21st September. A detailed programme will be published incorporating the challenges of a reduced agenda and limitations of time zones to ensure MS are not on screen too long and can make important decisions while keeping MS interested. Assembly is the most important decision organ of the IHO and the IHO work programme and the IHO budget have been decided by correspondence. Council will follow A-2 with the main objectives to take note of A2 decisions and to establish new Council for the period of 3 years.

A-2 proposal of the revision of IHO resolution 2/1997 of establishment of RHC has been approved by MS. SAIHC to consider need to adapt statutes and comply with recommendations.

The Chair thanked Director Kampfer for the update.

Decision - None

Action 2: SAIHC Chair to review the statutes to comply with IHO resolution 2/1997.





REPORT FOR 9th SAIHC INT CHART COORDINATION WORKING GROUP MEETING

Video-conference, UK

7th September 2020

1. Introduction

The 9th SAIHC ICCWG meeting was initially scheduled in Mauritius, but due to the Covid-19 pandemic, it was arranged that the meeting be conducted via Microsoft Teams and included an introduction by the SAIHC Chair and an overview by the IHO Secretariat. At the opening of the ICCWG session, the Chair welcomed all participants and acknowledged the challenges faced by all due to Covid-19 and highlighted the importance of continuing to provide a seamless and trouble-free experience in support of safe navigation to the end user. This report summarises the amendments and updates to the action items arising from the 8th ICCWG meeting as well as agenda items discussed during the meeting.

2. Actions arising from the 8th ICCWG Meeting

Serial			
No	Subject	Action	Remarks
ICCWG- 8 Action 1	ICC-WG Coordinator to contact Russia and Australia to resolve ENC overlap.	ICC-Coordinator	Ongoing
ICCWG- 8 Action 4	To define ENC scheme for SAIHC Region H.	ICC-Coordinator	Developments wrt the IHO GIS will assist in identifying existing gaps in the ENC schema and serve as a tool for future planning of ENC within the region. Ongoing
ICCWG- 8 Action 5	Suggested trial teleconference	ICC-Coordinator	There will more focus on improving communications between MS to discuss pertinent charting matters by means of teleconference once we have established an effective and appropriate 'freephone' solution.
	INT 7582 – is to be removed from S11	Portugal	INT 7582 removed from
8	and the chart is to become INT 7583	Mozambique	S11.
Action 6	(new INT number). A copy of this chart		New chart INT 7583 has
	needs to be circulated to the members		been added to S-11





	for comment and will be pending until this is done.		(national number 16401). Mozambique and Portugal still in discussions and work is progressing.
			Item closed (new action item)
ICCWG- 8 Action 7	INT 7631 & INT 7632 - ongoing discussions between MZ and PT. New survey data is awaited and this will affect buoyage's and chart limits (which still need to be confirmed).	Portugal Mozambique	INT 7632 - chart produced and ready for publication. Item split into two new actions.
ICCWG- 8 Action 8	INT 7645 – the Scheme has been proposed and is in process. As soon as the limits have been established they are to be forwarded to the chairman for inclusion in S11.	Portugal Mozambique	MZ has confirmed chart limits (S-11). Awaiting new survey data. Ongoing
ICCWG- 8 Action 9	Member States to feedback comments on how CATZOC is to be used to DQWG.	Member States	10 nations have provided feedback to date. Chair asked SAIHC members to please feedback/carry out action if not done so. Ongoing
ICCWG- 8 Action 10	UK, Tanzania, Kenya, and India to coordinate ENC requirements to provide the latest data in a carriage compliant product for the Mariner and report back to ICCWG coordinator.	UK, Tanzania, Kenya, India	Ongoing
ICCWG- 8 Action 12	India and UK to confirm when overlaps with GB ENCs have been removed in Seychelles, Tanzania and Mozambique.	India and UK	Ongoing

3. Actions arising from the 9th ICCWG Meeting

Serial No	Subject	Action	Remarks
	INT 7583 (Maputo) - survey in progress and chart production to start as soon as possible.		
ICCWG 9/2	INT 7631 (Beira Harbour Approach) - chart production in progress.	Portugal Mozambique	





ICCWG	INT7641 (Quelimane Harbour	Portugal	
9/3	Approach) - new survey planned during	Mozambique	
	first quarter of 2021. New edition of		
	chart in discussion.		
ICCWG	South Africa and France to confirm	South Africa	
9/4	when ENC overlap between ZA100030	France	
	and FR277980 has been resolved.		

4. Region H Chart Scheme

The Chair introduced the Region H INT Chart Scheme with an overview slide and stated that there were a total of 125 INT charts covering Region H of which 102 are produced and 23 are schemed. It was mentioned that the region currently has comprehensive paper chart coverage but there are however some INT chart gaps that are still awaiting some national charts to be converted to INT charts.

Various amendments to S-11 were made since the last ICCWG meeting in 2019 consisting of changes to first and new edition dates, changes to limits and scheduled completion dates. These amendments were highlighted in the S-11 table of which some were also related to action items. The Chair discussed S-11 and requested feedback from members present on any progress to identify any challenges and possible action items which may arise, or changes to projected completion dates.

The Chair discussed matters of expectations from ICCWG members regarding the maintenance of the S-11 online catalogue and that consultation, cooperation and collaboration is essential to ensure the optimum outcome in the charts produced and the consistency of their content. The necessity to keep all INT charts and ENC schemes under continuous review and monitoring of INT charts was also discussed.

The importance that any surveys done must be forwarded to the PCA so that the latest information is updated and displayed on the official and only version of the paper chart and ENC and to avoid duplication of effort was also highlighted.

The status of ENC coverage in the region was presented with a slide showing a breakdown of the number of ENCs per usage band and a total of 257 ENCs covering Region H.

5. ENC Overlaps within the Region

The Chair displayed a table highlighting the current status of overlapping ENCs in the region showing the overall severity of risk to navigation based on IC-ENC and PRIMAR reports. The status of overlaps were discussed and the presentation included graphics showing 8 live overlaps.

The Chair stated that the overlap between Russia and Australia had been unresolved for a significant period of time and the countries affected had been requested to resolve the





overlap. Due to the lack of response or action, IHO Director Kampfer suggested that IC-ENC be approached and requested to resolve the overlap.

France stated that they were unaware of the ENC overlap with South Africa. The Chair commented that he would communicate with France outside the ICCWG session in resolving the overlap.

The UK indicated that they were in discussions with India in resolving the overlaps within the region.

The chair concluded this agenda item by highlighting the potential implications overlapping ENCs may have on ECDIS systems and the safety of navigation.

6. SAIHC ENC Scheme – Gridded ENC Option

SAIHC action item 37 relates to the SAIHC ENC Scheme with UK to support ICCWG Coordinator in making progress with the ENC scheme for the SAIHC region.

UK - prepared a paper for circulation ahead of the meeting which was uploaded to the IHO website to prepare members for comment at the ICCWG meeting. The presentation described the existing SAIHC ENC scheme which evolved from paper chart limits and the option of a gridded scheme not based on traditional paper charts. Grid options were discussed, and an example of an approach chart coverage was shown.

The UK recommended the following:

SAIHC ICCWG monitors global developments in ENC gridding as IHO members start to investigate further and make advances.

Consider if SAIHC areas that do not have ENCs at the moment would benefit from gridded ENCs instead of following paper chart limits.

Undertake further research to understand how many gridded cells could be required and consider advantages and disadvantages in closer detail.

The presentation was followed by discussions and IHO Director Kampfer highlighted that there were overlapping issues in the existing ENC scheme which needed to be resolved before consideration of a gridded ENC option which may introduce further overlapping issues in the region.

7. Future of the Paper Nautical Chart

The NCWG Secretary, Mr James Timmins provided an update on the 'Future of the Paper Nautical Chart' on progress since the last SAIHC meeting as to the future requirement for INT charts.

Techniques for reducing maintenance on paper charts by producing limited new editions was discussed with reference to the UK adopted SAN charts currently in production.





The Secretary also stated that the UK is taking over responsibility for English language INT 1.

8. Conclusion

In conclusion, the working group are requested to note the report and the actions arising from the 9^{th} ICCWG meeting to be included in the final minutes of the VTC meeting.





REPORT FOR 2nd SAIHC MARINE SPATIAL DATA INFRASTRUCTURE WORKING GROUP MEETING

Video-conference, UK

7th September 2020

1. Introduction, approval of agenda

The Chair welcomed the group and highlighted the key aims were to share the work the MSDIWG since forming at Seychelles Aug 2018 and provide an update on the IHO MSDIWG. He was pleased to announce Mr Jens Peter Hartmann would present an update in his role as IHO MSDI WG Chair.

2. Update since SAIHC 16

The Chair gave an overview on updates since SAIHC 16 and referred to the Annual report provided in July. He thanked Norway and France for their contributions to the revision of TOR/ROP to incorporate the coordination of the GEBCO Seabed 2030 activity within the SAIHC region. It was noted that the questionnaire on MSDI was received responses from France, Malawi, Mauritius, Norway, Portugal, Tanzania, UK and a live update from South Africa at SAIHC 16. This has enabled a database, knowledge base of where countries currently sit within MSDI.

3. Review of actions

Agenda Item	Action	Action By	Deadline	Status
SAIHC16- 7.1	UK to retrieve SHOM data from portal to include in generation of 100m grid for SAIHC region.	UK, SAIHC MSDI working group	31 October 2019	Closed
SAIHC16 - 7.2	SAIHC MSDIWG to include Seabed 2030 activity and support in ToR.	SAIHC MSDIWG coordinator	During SAIHC16	Closed
SAIHC16 - 13	SAIHC Member States are encouraged to explore the draft MSDI training material available on the SAIHC website and join the SAIHC MSDIWG to progress MSDI within the SAIHC region.	SAIHC Member States	SAIHC17	Closed





SAIHC16 -	SAIHC Member States are	31 October	SAIHC17	Closed
requested to complete the		2019		
	SAIHC MSDI			
SAIHC Member questionnaire,				
	if not already completed.			

Action MSDI 2/1: MSDI WG Chair to set up a MSDIWG specific Seabed 2030 meeting before December 2020.

Action MSDI 2/2: SAIHC Secretary to make an agenda item in plenary for MSDI Seabed 2030.

4. Recap of MSDI

The chair noting that there were some new delegates attending the VTC offered a short recap of the principles of MSDI. Of note the presentation focussed on alignment between the four pillars of MSDI and the UN-GGIM nine strategic pathways.

5. Overview of Regional Activity

The Chair précised the known MSDI activity in the region and urged delegates to forward any further activities that could be shared with the group. These included - The Seychelles Marine Spatial Plan (MSP) Initiative, Marine Spatial Atlas for the Western Indian Ocean (MASPAWIO), African Coastal and Marine Atlas (ICAN), BIOPAMA, Nairobi Convention – Marine Spatial Planning Group- supported fishing institutions for Kenya. France were thanked for a recent update on activity MSDI related and European MSP initiatives. Norway highlighted the supporting work by the Arctic Council and have created a short video on MSDI principles to be made available to the group.

MSDI Action 2/3: Norway to investigate access to this video on MSDI principles by 31 October 2020.

6. Changes to TOR's/ROP's

The Chair gave an overview of TOR's/ROP's to incorporate Seabed 2030 activity in SAIHC region. He noted the request in the annual report for coastal states to consider the provision of a graphic/snapshot of a grid surface that would support the grid cell sizes defined by GEBCO Seabed 2030 project.

7. Training and Capacity Building to support MSDI at SAIHC

Existing IHO MSDI training material- The Chair thanked Jens Peter for the training material resources previously provided and addressed the opportunity for members to use this.

Hydrographic Governance Workshop as part of the Southern Africa Blue Economy Programme - The UK Government sponsored seminar developing hydrographic capability





was delivered in Pretoria in February 2020 and incorporated some key modules in MSDI. In attendance were Angola, Madagascar, Malawi, Mozambique, Namibia, Seychelles and South Africa. The workshop looked at how MSDI can support government spatial planning, understand where the states were in terms of maturity and the development of an implementation plan.

Capacity Building Coordinator noted that IHO funding for MSDI has limited resources and asked members to consider what opportunities they would like to discuss at the SAIHC 3-year work plan which will be raised at SAIHC 17 plenary. A hydrographic governance awareness seminar has been funded for next year and MSDI could be a focus topic if members consider it would be beneficial to the region.

8. IHO MSDI WG Activity

Jens Peter Hartman introduced himself and thanked Tim for the opportunity to present. He provided a detailed overview of MSDI resources and training available on the IHO website. He noted 58 members of the WG with 29 MS and 14 expert contributors' including private companies/organisations who provide important input. From SAIHC region France, Norway, UK and Portugal are members. The aim is to monitor MSDI activities and to bring land and sea together and to cooperate with relevant bodies. Sustainable Development Goals requires an even balance in investment and Hydrography is a keystone data type. Overview of UN-GGIM and IGIF to establish a new framework aligned to the these for MSDI. He gave a summary of MSDI questionnaire Funding, target users, main applications etc. 41 answers received, 28 national MSDI established and 12 national HO responsible for the MSDI.

MSDI WG Chair thanked Jens Peter for his input and asked if the region MSDI WG can get support from the IHO MSDI WG. Jens Peter confirmed that they will support where needed and to make contact via email.

SAIHC MSDI Chair reflected on the importance that MSDI can play not only to coastal states but to water bodies such as Lake Malawi and Lake Victoria.

Norway UN-GGIM Marine Spatial WG encompasses not just oceans, seas and coastal waters but inland waters as well.

9. Summary and key actions

With reference to the MSDIWG Annual report from July 2020, key actions, items of note, considerations and provisions are as follows SAIHC 17 MSDIWG is invited to: Note this annual MSDI report; Consider and update the WG on any MSDI activity in the SAIHC region.

MSDI Action 2/4: Member States to provide a graphic/snapshot of grid surface, or the surface itself, that supports GEBCO Seabed 2030 coverage within SAIHC region.

France - Raised whether the SAIHC region should produce a grid or reference the data that already exists that could support Seabed 2030.





The Chair responded reiterating the TOR for the MSDIWG is to coordinate activity to support GEBCO Seabed 2030 and suggested currently it is to identify data that is already there. This will form part of the agenda for the specific meeting on Seabed 2030.

Norway - The Lamont-Doherty Earth Observatory in Columbia University will put together the grid for regional centres in this case Atlantic and Indian Ocean. For the SAIHC region we need to be proactive to see what data is accessible in the region and support to achieve the goal of full coverage by 2030.

AOB and Close

The SAIHC Chair thanked Alfons Van Craeynest ICCWG Chair (South Africa) and Tim Lewis MSDIWG Chair (UK) for running the respective sessions and to all the participants for their time, energy and contributions throughout the day.

He invited feedback from members for issues to discuss to take to Council held virtually in November. No comments or correspondence from members.

Decision - None

Action 3: Member States to email SAIHC Secretary on any SAIHC issues they wish to raise at Council by 31 October.

UK - Tim Lewis thanked the group and highlighted the key action to take forward coordination role of GEBCO Seabed 2030. Agreed to take an action for a meeting before December and to include an agenda item at plenary in January.

Director Kampfer thanked Chair and staff for running the VTC event. Highlighted the learning opportunities and lessons to be learnt from today's meeting, IRCC, HSSC, Assembly and Council as VTC's until we can get back to travel in the new year and meet in person and be a bit more productive.

The SAIHC Chair thanked the Secretary for organising and conducting a successful event and is looking forward to the plenary in January, ahead of which I will work with Mr Joomun to finalise details.

The Chair gave his best wishes to delegates and families, stay safe and take care.





Annex A - Action List

Generic Actions

No.	Item	Action	Due Date	Action Lead
1	Plenary	SAIHC Chair to consult with Vice	November	SAIHC Chair
	dates and	Chair to affirm dates and details for	2020	
	details	Plenary of SAIHC 17 in January to		
		be held virtually		
2	Review of	To review SAIHC statutes to ensure	October	SAIHC Chair
	SAIHC	they comply with IHO Solution	2020	
	statutes	21997		
3	SAIHC	Member states to email SAIHC	31	Member States
	issues to	secretary on issues to take to	October	
	raise at	Council held virtually in November	2020	
	Council			

MSDI Actions

No.	Item	Action	Due Date	Action Lead
MSDI 9/1	MSDI WG GEBCO Seabed 2030 Meeting	To set up a meeting for WG to discuss important points ahead of Plenary by December.	November 2020	T. Lewis (MSDI WG Chair)
MSDI 9/2	Agenda item for MSDI GEBCO Seabed 2030	Ensure Plenary have a separate agenda item for MSDI GEBCO Seabed 2030.	December 2020	SAIHC Secretary
MSDI 9/3	MSDI video	Norway to investigate access to this video on MSDI principles.	31 October 2020	Norway
MSDI 9/4	GEBCO Seabed 2030	Provide a graphic/snapshot of grid surface, or the surface itself, that supports GEBCO Seabed 2030 coverage within SAIHC region.	Ongoing	Member States





ICCWG Actions

Serial	Subject	Action	Remarks
No	ICC-WG Coordinator to contact Russia and		
8	Australia to resolve ENC overlap.	Coordinator	Ongoing
Action 1	Additional to receive Live evenup.	Coordinator	
	To define ENC scheme for SAIHC Region H.	ICC- Coordinator	Developments wrt the IHO GIS will assist in identifying existing gaps in the ENC schema and serve as a tool for future planning of ENC within the region. Ongoing
ICCWG-	INT 7645 – the Scheme has been	Portugal	MZ has confirmed chart
8 Action 8	be forwarded to the chairman for inclusion	Mozambique	limits (S-11). Awaiting new survey data.
ICCMC	in S11. Member States to feedback comments on	Member	Ongoing
8 Action 9	how CATZOC is to be used to DQWG.	States	10 nations have provided feedback to date. Chair asked SAIHC members to please feedback/carry out action if not done so.
			Ongoing
ICCWG- 8 Action 10	UK, Tanzania, Kenya, and India to coordinate ENC requirements to provide the latest data in a carriage compliant product for the Mariner and report back to ICCWG coordinator.	UK, Tanzania, Kenya, India	Ongoing
ICCWG- 8 Action 12	India and UK to confirm when overlaps with GB ENCs have been removed in Seychelles, Tanzania and Mozambique.	India and UK	Ongoing
ICCWG	INT 7583 (Maputo) - survey in progress	Portugal	Ongoing
9/1	and chart production to start as soon as possible.	Mozambique	
ICCWG 9/2	INT 7631 (Beira Harbour Approach) - chart production in progress.	Portugal	Ongoing
5/2	production in progress.	Mozambique	
ICCWG 9/3	INT7641 (Quelimane Harbour Approach) – new survey planned during first quarter of	Portugal Mozambique	Ongoing
ICCWG	2021. New edition of chart in discussion. South Africa and France to confirm when	South Africa	Ongoing
9/4	ENC overlap between ZA100030 and FR277980 has been resolved.	France	Ongoing





Annex B- Attendance list, 33 participants

	Members				
No.	Country	Participant	E-mail		
1	France	Pierre-Yves Dupuy (Head)	Pierre-yves.dupuy@shom.fr		
2	France	Vincent Lamarre	Vincent.lamarre@shom.fr		
3	Marritina	Mohammad Salim F			
	Mauritius	Joomun (Vice Chair)	mjoomun@govmu.org		
4	Mauritius	Rahul Bhatt	Oic_hydrounit@govmu.org		
5	Mozambique	Ricardo Machave	ricardomachave@inahina.gov.mz		
6	Mozambique	Sinibaldo De Jesus	saanhanga@yahaa aam br		
		Varela Canhanga	scanhanga@yahoo.com.br		
7	Mozambique	Celia Magaia	tekuasse@hotmail.com		
8	Norway	Evert Flier (Head)	evert.flier@kartverket.no		
9	Seychelles	Joachim Valmont	dg@smsa.sc		
10	South Africa	Theo Stokes(Head)	theo.stokes@sanavy.co.za		
11	South Africa	Alfons Van Craeynest	hydrosan@iafrica.com		
12	South Africa	Christoff Theunissen	hydrosan@iafrica.com		
13	United Kingdom	Peter Sparkes (Chair)	Peter.sparkes@ukho.gov.uk		
14	United Kingdom	James Timmins	james.timmins@ukho.gov.uk		
15	United Kingdom	Tim Lewis	tim.lewis@ukho.gov.uk		
16	United Kingdom	Lucy Fieldhouse	lucy.fieldhouse@ukho.gov.uk		
17	United Kingdom	Ashley Parker (Secretary)	ashley.parker@ukho.gov.uk		
		Associate Memb	ers		
No.	Country	Participant	E-mail		
18	India	Adhir Arora	ia-inho@navy.gov.in		
19	India	Adhir Arora Peush Pawsey	Peush.pawsey@navy.gov.in		
		Peush Pawsey	Peush.pawsey@navy.gov.in jdrajaona@gmail.com,		
19 20	India Madagascar	Peush Pawsey Jean Désiré Rajaonarison	Peush.pawsey@navy.gov.in jdrajaona@gmail.com, ftm@moov.mg		
19	India	Peush Pawsey Jean Désiré Rajaonarison Narizo Mahefa	Peush.pawsey@navy.gov.in jdrajaona@gmail.com, ftm@moov.mg rahaingoalison.narizo@gmail.com,		
19 20 21	India Madagascar Madagascar	Peush Pawsey Jean Désiré Rajaonarison Narizo Mahefa Raahaingoalison	Peush.pawsey@navy.gov.in jdrajaona@gmail.com, ftm@moov.mg		
19 20	India Madagascar	Peush Pawsey Jean Désiré Rajaonarison Narizo Mahefa Raahaingoalison Carlos Ventura-	Peush.pawsey@navy.gov.in jdrajaona@gmail.com, ftm@moov.mg rahaingoalison.narizo@gmail.com, ftm@moov.mg		
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19 20 21 22 23 24	India Madagascar Madagascar Portugal Portugal Portugal	Peush Pawsey Jean Désiré Rajaonarison Narizo Mahefa Raahaingoalison Carlos Ventura- Soares(Head) Paula Sanches Paulo Nunes	Peush.pawsey@navy.gov.in jdrajaona@gmail.com, ftm@moov.mg rahaingoalison.narizo@gmail.com, ftm@moov.mg ventura.soares@hidrografico.pt paula.sanches@hidrografico.pt antunes.nunes@hidrografico.pt		
19 20 21 22 23 24 25	India Madagascar Madagascar Portugal Portugal Portugal Portugal Portugal	Peush Pawsey Jean Désiré Rajaonarison Narizo Mahefa Raahaingoalison Carlos Ventura- Soares(Head) Paula Sanches Paulo Nunes João Vicente Miguel Pacheco	Peush.pawsey@navy.gov.in jdrajaona@gmail.com, ftm@moov.mg rahaingoalison.narizo@gmail.com, ftm@moov.mg ventura.soares@hidrografico.pt paula.sanches@hidrografico.pt antunes.nunes@hidrografico.pt dt.hi.chf@hidrografico dt.dir@hidrografico.pt		
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